

VII. Health Promotion, Health Protection, and Disease Prevention

In accordance with the mission of public health, the Mississippi State Department of Health (MSDH) focuses its efforts on health promotion, health protection, and disease prevention.

Health promotion strategies relate to individual lifestyle – personal choices made in a social context – that can have a powerful influence over one's health prospects. These priorities include physical activity and fitness, nutrition, tobacco, alcohol and other drugs, sexual behavior, family planning, mental health and mental disorders, and violent and abusive behavior. Educational and community-based programs can address lifestyle in a crosscutting fashion.

Health protection strategies relate to environmental or regulatory measures that confer protection on large population groups. These strategies address issues such as unintentional injuries, occupational safety and health, environmental health, food and drug safety, and oral health. Interventions to address these issues may include an element of health promotion, but the main approaches involve a community-wide rather than an individual focus.

Preventive services include counseling, screening, immunization, and other interventions for individuals in clinical settings. Priority areas for these strategies include maternal and infant health, heart disease and stroke, cancer, diabetes, chronic disabling conditions, sexually transmitted diseases (including HIV/AIDS), and other infectious diseases.

Healthy People 2010: National Health Promotion and Disease Prevention Objectives, released in 2000 by the Public Health Service of the U.S. Department of Health and Human Services, identified national health improvement goals and objectives to be reached by the year 2010. This publication defined two broad goals:

- to increase quality and years of healthy life; and
- to eliminate health disparities.

Healthy People 2010 provides a framework around which public health objectives are developed. This chapter provides a synopsis of MSDH activities in each of the three major focus areas – health promotion, health protection, and disease prevention – and references other public agencies and private organizations attempting to improve the health status of Mississippians. Sections are arranged in the same order as in the *Healthy People 2010* publication.

Measurements for many objectives are obtained from the Behavioral Risk Factor Surveillance System (BRFSS) survey, which is a random sample telephone survey of the adult (age 18 and older) civilian non-institutionalized population. The survey is designed to estimate the prevalence of certain behavior patterns and risk factors associated with disease, injury, and death. The results provide a tool for evaluating health trends, assessing the risk of chronic disease, and measuring the effectiveness of policies, programs, and awareness campaigns.

Table VII-A-1 at the end of the chapter presents selected health status indicators for Mississippi and compares them to similar indicators for the nation. *Vital Statistics Mississippi, 2001*, and the *Mississippi Morbidity Report* – both published by the Mississippi State Department of Health – include the most recent complete statistics available and provide the information for Table VII-A-1.

Health Promotion

Physical Activity and Fitness

Research well documents the health benefits of regular physical activity — it can help prevent coronary heart disease, hypertension, non-insulin dependent diabetes mellitus, osteoporosis, and such mental health problems as mood, depression, anxiety, and lack of self-esteem. Regular physical activity may also reduce the incidence of stroke and help maintain the functional independence of the elderly. On average, physically active people outlive those who are inactive. However, the 2002 Behavioral Risk Factor Surveillance System (BRFSS) reported that 81 percent of adult Mississippians are not physically active on a regular basis (at least five days per week, for at least 30 minutes per day).

The MSDH Office of Health Promotion coordinates initiatives for physical activity and serves as a contact for physical activity to the Centers for Disease Control and Prevention (CDC). The Mississippi Legislature enacted a worksite health promotion bill authorizing state agencies to offer employee wellness programs under guidelines established by the MSDH. Employees of the MSDH central office and two district offices have access to on-site fitness facilities. Worksite physical activity promotion programs have been implemented at the MSDH and at Entergy. These pilot sites will be used as indicators for future worksite health promotion program incentives provided by employers.

The MSDH Cardiovascular Health Program and Diabetes Control Program attempt to address physical activity barriers across the state by supporting community efforts to develop structural changes to the environment to increase outlets for physical activity. In the community setting, faith-based programs receive funding to conduct physical activity, nutrition education programs, and policy changes to increase awareness of the importance of a healthy lifestyle. In the school setting, programs are funded to conduct physical activity and nutrition programs for staff and students. Other physical activity programs are being implemented regionally by trained teachers to influence physical activity behaviors in students at K-6 levels.

The MSDH Office of Health Promotion partners with the Mississippi State Department of Education (MDE), which certifies teachers for health education, to implement the coordinated school health education program. Mississippi high school graduates must possess at least one-half Carnegie Unit in Comprehensive Health Education. The MDE also approves the Comprehensive School Health Framework and the Mississippi Fitness Through Physical Education curriculums.

The MSDH also collaborates with the Governor's Commission on Physical Fitness and Sports, which strives to increase the level of physical activity for all Mississippians. The commission plays a major role in fitness testing of school children throughout the state, using the Cooper Institute's Fitness Gram. The commission promotes quality physical education programs in Mississippi schools through its Excellence in Physical Education Certification Program. Worksite needs are addressed through the promotion of National Employee Health and Fitness, the Annual Mississippi Worksite Award Program, and others.

The Mississippi Alliance for School Health (MASH), a non-profit organization composed of more than 40 statewide partners, leads efforts to promote daily physical education in schools. The 2001 Youth Risk Behavior Survey reported that 68 percent of Mississippi students were not enrolled

in physical education (PE) class; 77 percent did not attend a PE class daily; and 41 percent did not participate in moderate or vigorous physical activity in the week prior to the survey.

Nutrition

The Department of Health provides nutrition counseling and referral through a statewide system of professional district-level nutrition supervisors who direct county-based nutrition staff. A variety of funding sources support these positions, including the Special Supplemental Food Program for Women, Infants, and Children (WIC), the Perinatal High Risk Management System (PHRM), and the Maternal/Child Health (MCH) Block Grant. WIC funds support an additional 12 nutritionist positions in local non-profit community health centers.

State and district nutritionists, in conjunction with nutrition staff of state universities, provide nutrition community rotation programs for dietetic students. State nutrition staff serve on committees dealing with school health, food security, cardiovascular disease, chronic illness, the Mississippi Dietetic Association, and other organizations related to health, fitness, and nutrition.

Tobacco Prevention

The MSDH Division of Tobacco Policy and Prevention (DTPP) directs its efforts toward reducing tobacco use among Mississippi youth and adults. The division monitors surveillance of smoking prevalence and smokeless tobacco use and works on new tobacco prevention initiatives in schools, clinics, communities, and work sites. Every other year the division conducts a Youth Tobacco Survey (YTS) to determine the prevalence of tobacco use among young people. The survey also includes questions concerning the tobacco-related knowledge and attitudes of young people and their parents, the role of the media and advertising in young people's use of tobacco, minor's access to tobacco, environmental tobacco smoke exposure, and the likelihood of cessation of tobacco use.

The DTPP supports educational and awareness campaigns conducted through the state's nine public health districts to increase awareness of the negative effects of environmental tobacco smoke and tobacco use. The division also works closely with non-profit organizations such as the Lung Association, the Cancer Society, the Heart Association, and the Partnership for a Healthy Mississippi. These and other members make up Mississippi's State Tobacco Coalition. The goal of the coalition is to make more Mississippians healthier by becoming tobacco-free and supporting clean indoor air legislation.

The DTPP also administers the School Health Nurses for a Tobacco-Free Mississippi Program, which provides grants to 51 school districts throughout the state. Each grant is for \$50,000, for a total of \$2.55 million. The funds are provided through the Partnership for a Healthy Mississippi from the Tobacco Expendable Fund. These nurses provide educational instruction and curriculum-based tobacco prevention activities for students in grades K-12.

The program's objectives include supporting and/or expanding community programs that link tobacco control intervention with disease prevention activities; promoting existing prevention and treatment models that can address cessation needs; and identifying and eliminating tobacco use disparities among Mississippi population groups.

The Partnership for a Healthy Mississippi is a non-profit agency composed of more than 800 public and private and organizations; its mission is to create a healthier environment in Mississippi by

reducing tobacco use through advocacy, education, and service. The Partnership is dedicated to offering youth healthy lifestyle choices by designing programs and media messages to create an environment in Mississippi that does not accept tobacco use. The Partnership offers a comprehensive approach through community outreach, public awareness, advocacy, cessation, and enforcement of youth access laws.

In 2000, the State Tobacco Control Advisory Committee (now the State Tobacco Coalition) and the Mississippi State Board of Health Committee on Tobacco jointly developed a comprehensive *State Tobacco Prevention and Control Plan*. Section B of this chapter contains the complete text of this plan.

Alcohol and Other Drugs

The Department of Mental Health's Division of Alcohol and Drug Abuse coordinates a statewide system of publicly-funded services for the prevention and treatment of alcohol and drug abuse. Each of the state's 15 regional community mental health/mental retardation centers provides a variety of alcohol and drug services at the local level with funds from the Department of Mental Health. A substantial number of for-profit and not-for-profit alcohol and drug abuse programs also offer services throughout the state. Chapter IX provides further discussion of these services.

The crisis created by alcohol and drugs resulted in several active public awareness groups, such as Developing Resources for Education in America (DREAM), Students Against Driving Drunk (SADD), and Mothers Against Drunk Driving (MADD). MADD establishes the public's conviction that impaired driving is unacceptable and criminal by promoting corresponding public policies, programs, and personal accountability. MADD sponsors such programs as victim assistance, public awareness, criminal justice, and organized youth programs. Its student counterpart, SADD, extends this mission into the schools, with positive peer messages encouraging sobriety and providing referrals to available assistance programs.

Family Planning

The Mississippi Statewide Family Planning Program promotes awareness of and access to reproductive health benefits by encouraging individuals to make informed choices that provide opportunities for healthier lives. In addition to providing medical services, the MSDH Family Planning program acts as a facilitator for access to family planning care and as a source of technical assistance for providers of family planning services in both the public and private sectors.

The Family Planning Program seeks to provide convenient access to high quality contraceptive, infertility, and other family planning services in an atmosphere that maintains each individual's privacy and dignity. The program targets teenagers at risk and women 20 to 44 years of age with incomes at or below 150 percent of the federal poverty level. The program serves more than 100,000 people annually, including 32,000 teens.

Local health departments and subcontractors provided family planning services to 103,536 users in calendar year 2002, including 32,376 users aged 19 and younger. The number of teen mothers giving birth to their second child represented 22 percent of all teen births; the program's goal is to reduce this to 19 percent in 2003. All family planning clients received counseling on healthy lifestyle choices such as proper nutrition, exercise, and avoiding risky behavior.

Violent and Abusive Behavior

The MSDH funds nine Rape Crisis Centers and 13 Domestic Violence Shelters across the state. In addition, funds are provided to the Coalition Against Sexual Assault and the Coalition Against Domestic Violence. These statewide entities meet separately on a monthly basis and serve as links for intervention programs with professional service providers and various funding sources. A number of social services programs throughout the state address medical needs, stress factors, and violent behaviors that manifest when victims of crime seek professional assistance. A Board of Directors, oriented to the issues related to trauma and violent behavior, provides governance to each Coalition.

Statistics from the 13 domestic violence shelters provide evidence that up to 60 percent of those involved in domestic violence situations have been physically abused themselves. Physical, sexual, and emotional abuse present public health problems of epidemic proportions. Domestic violence does not recognize race, gender, or socioeconomic status. According to the American Medical Association, *Strategies for the Treatment and Prevention of Sexual Assault*, one in five females are sexually assaulted and/or abused before they reach age 21.

From October 1, 2001, to September 30, 2002, a total of 1,119 women and 1,326 children received services from a shelter due to domestic violence. A total of 71,760 calls were received in Mississippi from victims seeking information and/or referrals. During the same fiscal year, of the new or reopened cases, 995 women experienced both physical and psychological abuse. A total of 646 women were able to create new living arrangements as a result of shelter intervention.

During the same period, the nine Rape Crisis Centers reported sexual assault cases totaling 59 males and 1,235 females. The majority were females age 18-24 reporting sexual assault. For males, the age range most reporting sexual assault was 7-12.

As part of Rape Crisis Centers and Domestic Violence Shelters, law enforcement training is of vital importance. New law enforcement recruits receive training on how to effectively deal with victims and are educated regarding procedures to access resources. Last year, Rape Crisis Centers conducted 37 law enforcement training seminars to 568 participants. Domestic Violence Shelter staff conducted 1,904 educational programs to 77,100 participants.

Mississippi is especially proud of the Sexual Assault Nurse Examiner (SANE) training that is provided statewide to hospital personnel. The basis of SANE is the belief that sexual assault victims have an absolute right and responsibility to report rape. While a victim may choose not to report to law enforcement, the victim has a right to know what his or her options are if the choice is not to report. Those who do report have the right to sensitive and knowledgeable support without bias. Overall, the mission of SANE is to meet the needs of assault victims by providing immediate, compassionate, culturally sensitive, and comprehensive forensic evaluation by trained, professional nurse experts within the parameters of the State Nurse Practice Act, the SANE standards of International Association of Forensic Nurses, and the individual agency policies.

The Mississippi Department of Human Services provides programs to address all forms of abuse, treatment, and education. The Family Preservation Program provides home-based services to strengthen a family in lieu of removing a child from the home environment. The Department of Mental Health and other non-profit programs are available to assist persons experiencing trauma in the aftermath of violence through regional community mental health centers.

Educational and Community-Based Programs

The MSDH Office of Health Promotion directs community-based activities aimed at prevention and education. The coordinator of community health services provides a link between district and local health promotion initiatives and state and national resources. Activities include community needs assessment, prioritization of health problems, coalition building, interventions, referrals, and evaluation. Activities are conducted through coalitions, committees, and state voluntary agencies, including the Community Health Advisory Network (CHAN).

In FY 2003, the Community Health program provided mini-grants to 10 community-based organizations to conduct activities related to diabetes, cardiovascular disease, and physical activity. The program collaborates with health educators in Mississippi's public health districts to conduct health education and prevention activities at the community level and collaborates with other programs to conduct health and wellness activities in church/fait-based settings.

Special Initiatives:

School Health Program: The school health program works to increase the proportion of schools implementing the eight components of a Coordinated School Health Program (CSHP). The school health coordinator acts as liaison to the Mississippi Department of Education (MDE) and the Mississippi Alliance for School Health (MASH). Activities include joint conferences with MDE and other agencies/organizations, surveillance of youth risk behaviors, consultations and technical assistance to statewide school nurses, and coalition building.

The program partners with MASH to conduct an annual Mississippi Institute on School Health, Wellness, and Safety conference. During FY 2003, eight school districts received mini-grants to advance action plans on Coordinated School Health Programs developed at the conference.

The program provides technical assistance to school nurses across the state and conducts a biannual Youth Risk Behavioral Surveillance Survey (YRBS) to measure behaviors among youth related to the leading causes of mortality and morbidity and to assess how these risk behaviors change over time. The YRBS measures behaviors that result in unintentional injuries and violence; tobacco use; alcohol and other drug use; sexual behaviors that result in HIV infection, other sexually transmitted diseases, and unintended pregnancies; dietary behaviors; and physical activity. The 2001 YRBS is available on the MSDH website.

Health Promotion Clearinghouse: The Health Promotion Clearinghouse focuses on the primary and secondary prevention of chronic illnesses, their risk factors, and injuries through the dissemination of pertinent health education and promotion information. The Clearinghouse showcases model programs, health education materials, journals and newsletters, policies and legislation, general health promotion information, and presentation materials. The Clearinghouse answers requests for health education materials and videos.

Health Protection

Unintentional Injuries

Each year in the United States, more than 150,000 people die from injuries and approximately one-fourth of the population suffer non-fatal injuries that range from minor wounds to chronic disabilities. Injuries are expensive, costing more than \$160 billion annually. In Mississippi,

unintentional injury leads to more years of potential life lost than any other factor – constituting the single greatest cause of mortality for persons between the ages of one and 44.

Motor vehicle collisions, falls, drowning, and residential fires cause a large number of the state's fatalities. Motor vehicle crashes rank first as the leading cause of injury death for all individuals age one and older. Suffocation ranks first as the leading cause of death for children age one and under.

The MSDH Office of Health Promotion coordinates initiatives to reduce deaths and disability related to the leading causes of injury in the state. The Child Passenger Safety Program provides education on child passenger safety, including correct installation of child restraints. Through this program, six certified child passenger safety technicians provide service statewide. The Fire Prevention Program provides education and information on fire safety. This program provides smoke alarms to areas in the state with the highest fire death rates. Other programs include fall prevention for older adults and partnerships to reduce drowning fatalities. Partnerships have been formed with other state and voluntary agencies whose mission involves injury prevention.

In FY 2002, the Injury Prevention program distributed information on effective programs and interventions to all nine public health districts, conducted bicycle safety activities, distributed 7,930 child safety seats, 500 bicycle helmets, 20,000 child passenger educational packets, and educational information statewide. The Mississippi Office of Highway Safety provided funds for some of these programs, in addition to CDC funding. The Fire Prevention Program distributed 3,609 smoke alarms, along with fire safety educational materials. The safety belt usage rate for 2001 was 61.6 percent. The unintentional injury death rate for 2001 was 54.8 per 100,000 population.

Environmental Health

The Department of Environmental Quality's Office of Pollution Control operates four major programs: (1) air quality control, (2) surface water quality control, (3) groundwater quality control, and (4) hazardous waste management. The air quality division implements guidelines to direct the state's sources of air contaminants toward compliance with numerous legislative and regulatory requirements. The surface water quality division deals with water quality of all intrastate, interstate, and coastal waters. The groundwater quality division administers numerous permit programs, both state and federally authorized, designed to regulate sources of potential contamination to the state's groundwater resources. The hazardous waste division regulates ongoing management of hazardous waste in the state.

The Mississippi Emergency Management Agency (MEMA) cooperates with the Environmental Protection Agency and the Federal Emergency Management Agency in the Chemical Emergency Preparedness Program. This program identifies the locations of acutely toxic chemicals utilization and/or storage to assist planning and response efforts concentrated in those areas.

The Mississippi State Department of Health protects the public through environmental health programs in public water supply, boiler and pressure vessel safety, radiological health, and general environmental services. The Public Water Supply Program assures safe drinking water to the 2.46 million citizens of Mississippi who utilize public water supplies by strictly enforcing the requirements of the Safe Drinking Water Acts. The program operates through five major areas: 1) bacteriological, chemical, and radiological monitoring of drinking water quality; 2) review of engineering plans and specifications for all new or substantially modified public water supplies in Mississippi; 3) annual surveys of each community public water supply to eliminate operational and maintenance problems

that may potentially affect drinking water quality; 4) enforcement to ensure that the bacteriological, chemical, and radiological water quality standards of federal and state Safe Drinking Water Acts are followed; and 5) licensure and training of water supply officials and training of consulting engineers and MSDH field staff in the proper methods of designing, constructing, and operating public water systems.

The Boiler and Pressure Vessel Safety Program enforces state laws, rules, and regulations governing boilers and pressure vessels. MSDH staff and reciprocal commissioned insurance company representatives inspect all boiler and pressure vessels covered by the inspection law, including approximately 35,000 objects. Some of these objects receive biennial inspections, with the larger and more hazardous ones inspected annually.

The Radiological Health Program of the MSDH identifies potential radiological health hazards and develops precautionary control measures. The program strives to: 1) identify the sources of radiation exposure; 2) understand the biological effects of radiation; 3) investigate and evaluate methods of detection; and 4) formulate and apply procedures for the control of exposure. In conformance with state law, the program maintains and enforces regulatory standards to ensure low exposure to biologically harmful radiation. The program evaluates each facility licensed to possess and use radioactive materials and each facility registered to operate X-ray devices to determine compliance with the regulations and specific license or registration conditions.

Through a comprehensive monitoring and surveillance program, the MSDH Division of Radiological Health (DRH) determines levels of radioactivity present in the environment, the probable effect of radioactivity on pathways leading to man, and the possibility of undesirable biological effects. To officially record radiation levels in the environment, the staff collects and analyzes approximately 2,000 samples annually. These samples include water, milk, soil, meat, air, and vegetation, as well as direct radiation measurements. The Legislature also designated the Radiological Health Program to review and comment on technical information regarding radioactive waste issues. Accordingly, the staff actively participated in the implementation of the Southeast Interstate Low-Level Radioactive Waste Management Compact. In addition, DRH maintains radiological emergency response capabilities in the event of an incident/accident at the Grand Gulf Nuclear Station or a transportation accident involving radioactive materials.

The DRH addresses indoor radon exposure as one aspect of natural radioactivity. While of great concern nationally, indoor radon exposure does not receive widespread public health concern in Mississippi. However, DRH expects to find indoor radon levels above the EPA-recommended action level in 2.5 percent of Mississippi's homes. DRH conducts an ongoing Radon-in-Schools (RIS) program and radon screening in public health facilities and governmental buildings.

General Environmental Services

The potential for the spread of disease through food or milk products, water, or the improper disposal of human waste has long been recognized. Environmental sanitation is the backbone of public health; the first boards and departments of health were formed to prevent the spread of disease by controlling environmental factors. In today's fast-paced society, more meals are eaten away from home, placing even more emphasis on the importance of proper food handling techniques and the safe service of food. Greater amounts of milk products are processed and packaged in central locations for distribution in markets nationwide. Emerging pathogens have the potential to contaminate food and milk supplies. As the population shifts toward suburban and rural areas, proper disposal of wastewater from individual homes grows in importance. Potential contamination of

ground and surface waters is an environmental and a public health problem. Insects and rodents affect the public's health either directly by bites, stings, or contamination, or indirectly by transmitting diseases. Other environmental hazards, such as childhood lead poisoning, need to be addressed by conducting environmental assessments. The MSDH has broad statutory authority, but many times inadequate resources for addressing these problems. Priorities must be set to direct those resources toward primary prevention activities which include community environmental services.

The MSDH operates general environmental services in four broad areas: food, milk, onsite wastewater, and institutional services. Insects and rodent vectors affect the public's health directly by bites, stings, or contamination, or indirectly by transmitting diseases. Such hazards as child lead poisoning are addressed by conducting environmental assessments for lead. During the home assessments, a lead specialist provides information to parents and caregivers about ways to reduce environmental lead hazards.

Food Protection

The Food Protection Program develops policies, provides guidelines, and gives technical advice and training to guide county and district environmentalists in inspecting food establishments. These environmentalists also provide assistance and training to the food industry in an attempt to ensure that facilities comply with state and federal laws, rules, and regulations. Food service facilities must receive an annual permit from the MSDH to operate, with inspection frequency based on risk factors which contribute to foodborne illnesses. The MSDH website provides access to all food establishment inspection results.

All permanent food service establishments must have a certified manager on staff. The Food Protection Division works in partnership with industry and academia to provide training and accomplish certification. In addition, state rating personnel provide training and standardization to the districts in an effort to ensure uniformity and quality inspections. Central office staff provide program assessments and help the districts to improve the total quality of the food protection program from the state to the county level.

Milk and Bottled Water

The Milk/Bottled Water Program develops policies to guide environmentalists in inspecting and ensuring compliance with state and federal laws, rules, and regulations regarding dairy farms, bulk milk haulers, transfer stations, receiving stations, pasteurization plants, frozen dessert plants, and bottled water plants. The program also conducts Milk Sanitation Compliance and Enforcement Ratings of milk supplies within the state. These efforts allow the dairy industry to participate in interstate and intrastate commerce. From design and construction of Grade A dairy farm facilities through product delivery to the retail consumer at the market, agency staff strictly regulate the safety of milk, milk products, and bottled water. Environmentalists inspect dairy plants, farms, and bottled water facilities before issuing a permit to sell milk and water, and take milk and water samples for laboratory analysis to ensure high sanitary quality. Uniformity in regulation results in reciprocity with other states and ensures availability and safety of milk and bottled water products. The program ensures that current and minimum public health requirements are applicable to new products and manufacturing processes within the industry.

In FY 2003, the number of milk plants or milk producer groups failing to receive a satisfactory rating on state or federal surveys remained at zero. The MSDH continued certification and sampling surveillance programs as set forth in Milk Program Policy and Bottled Water Policy.

In maintaining a drug-free milk supply, any tankers testing positive for antibiotics were required to dump the milk so that it did not reach consumers. The public health laboratory will continue testing tankers and producer samples that are screened from any tanker testing positive for aflatoxin.

Onsite Wastewater

The Onsite Wastewater Program develops policies/regulations and gives technical assistance to county and district environmentalists in inspecting R.V. parks, on-site wastewater disposal systems, and individual water supplies. From soil and site evaluations to final system approvals, the wastewater program is time-consuming and technical. District and county environmentalists perform soil and site evaluations and recommend the wastewater system best adapted to the site. Program specialists provide training and technical assistance. Local environmentalists respond to requests for assistance from the public regarding nuisance complaints, unsanitary conditions, and related matters.

The MSDH is currently instituting a GIS data collection system and database program for recording and reporting the data collected.

Institutional Services

Staff of the Institutional Services branch inspect the state penitentiary and its satellite facilities, jails, and state institutions, including food service operations. Staff also provide technical assistance to environmentalists inspecting foster homes, public buildings, and family day care homes. In addition, staff review plans of public buildings for compliance with the Handicap Code.

Within this branch, staff of the Childhood Lead Poisoning Prevention Program perform environmental assessments for lead in homes of children identified with elevated blood lead levels. These investigations include taking environmental samples for laboratory analysis for all children under the age of six with venous blood lead levels of 20 : g/dl or higher, and for all children under the age of six with two venous blood levels of 15-19 : g/dl taken at least three months apart.

Vector Control/Entomology

Within the Bureau of General Environmental Services, a public health entomologist directs the statewide vector control program, assisting all four programs through identification of insects and rodents, consultation on public health pest management, and prevention/control of insect-transmitted disease outbreaks. The entomologist conducts education efforts concerning mosquito control and proper pesticide use for municipal officials and mosquito control personnel. Mosquito integrated pest management workshops are held in various parts of the state. In addition, the MSDH entomologist conducts specialized mosquito identification and surveillance training for public health employees and selected Mississippi Cooperative Extension agents, as well as a statewide mosquito survey of mosquito species to assess their medical importance and where they occur.

Oral Health

The MSDH Division of Dental Services has the responsibility of assuring optimal oral health for every citizen of Mississippi. Responsibilities of the Division include: prevention and control of oral disease through assessment; policy and program development; and oral disease prevention through education outreach, fluoridation of community water supplies, school-based fluoride mouth rinse programs, a school-linked preventive dental sealant program, and a dental correction program for

children under age 18 with reported financial need and an inability to access essential oral health services through Medicaid or CHIP.

In 2000, the Division of Dental Services conducted a clinical survey on 5,227 third-grade children, using a stratified cluster sample of 74 public elementary schools, statewide. The mean age of participants was 8.6 years, with an age range of seven to 13 years, and an almost equal distribution by gender (50:50). Forty-three percent (n=2,242) of the sample was identified as white, and 57 percent (n= 2,965) black, with 20 students of unrecorded race. Seventeen percent (n=886) had at least one dental sealant on a permanent first molar tooth. Over 70 percent (n=3,685) of children demonstrated experience with dental decay, determined by the presence of at least one active lesion or one dental restoration. About 15 percent (n=779) of children were in urgent need of dental care, defined by pain and suffering, clinical inflammation, or loss of function.

In October 2001, the National Governors Association hosted a Policy Academy to help policymakers develop an active plan to improve oral health for children. The meeting resulted in the establishment of a full-time dental director's position within the MSDH to enhance leadership capabilities. The position was created and filled in October 2002. The Division also retains a pediatric dentist as a part-time dental consultant.

Also in October 2002, Governor Musgrove convened a Statewide Oral Health Task Force and appointed the State Health Officer as chairman. The Oral Health Task Force convened in January 2003 and is working to develop a comprehensive oral health action plan for Mississippi.

Public Health District III operates a school-linked dental sealant program through a partnership with the School of Dentistry at the University of Mississippi Medical Center. This program uses an Adopt-a-School model to encourage community dental providers to partner with a local elementary school to deliver the dental sealants. Over 1,000 dental sealants were placed in second grade school children during the first year. Additionally, a school-based oral health education program was developed to precede the dental sealant program in schools that agree to participate.

In 2002, Mississippi had 1,194 community public water systems. Of these public systems, 112 systems provided water fluoridation at recommended optimal fluoride levels, to serve about 1,159,859 people or approximately 39 percent of the state's population.

The Division of Dental Services identified 20 cities that should initiate public water fluoridation systems. The Division is actively seeking funds to make fluoridation grants to these cities for the first year's initial cost of the system. A contract dentist program functions to facilitate local compliance with the water fluoridation program and to change the existing daily fluoride level monitoring to a twice-weekly monitoring system.

The School Fluoride Mouth Rinse Program currently operates in 25 schools, with active recruitment for additional schools in progress for this program and for the dental sealant program. The Dental Corrections Program maintains a registry for cleft lip/cleft palate and plans to expand relationships with the Children's Medical Program to increase the number of children who might be eligible for dental services.

Preventive Services

Maternal and Infant Health

The MSDH provides maternity services statewide to more than 11,500 women through the county health departments, targeting pregnant women with incomes at or below 185 percent of the federal poverty level. The program addresses its goal of reducing infant mortality by providing accessible and continuous quality service based on risk status with referral to appropriate physicians and hospitals as indicated. The Supplemental Food Program for Women, Infants, and Children (WIC) provides essential nutritional counseling and supplemental foods to pregnant and breast-feeding women, as well as infants and children. Since 1990 it has also extended its services to homeless women, infants, and children residing in shelters.

A part-time, board-certified obstetrician provides consultation statewide for the Bureau of Women's Health. The public health team evaluates maternity patients at each visit, using protocols which reflect national maternity standards of care. The team places special emphasis on identifying high risk problems and ensuring appropriate care to reduce or prevent these problems. This includes assisting with arrangements for delivery by an obstetrician at a hospital that provides the necessary specialized care for the mother and the baby.

The MSDH maintains a toll-free telephone hotline which answers inquiries relating to Maternal Child Health (MCH) and Children with Special Health Care Needs (CSHCN). The toll-free line provides assistance to clients seeking MCH/CSHCN services, family planning services, Medicaid, and WIC, as well as other services. This line provides a valuable tool for encouraging early entry into prenatal care and to further link the private and public sectors.

Other groups advocating improved maternal and child health include the Mississippi Hospital Association, the Mississippi Perinatal Association, the Southern Governors' Association, the State Medical Association, the University Medical Center, the Infant Mortality Task Force, and the Mississippi Primary Health Care Association.

The Division of Genetic Services provides newborn screening for five genetic disorders to identify these problems early and initiate immediate intervention to prevent irreversible physical or mental retardation or death. Each baby born in Mississippi is tested for phenylketonuria (PKU), hypothyroidism (TSH), galactosemia (GAL), congenital adrenal hyperplasia (CAH), and hemoglobinopathies, such as sickle cell disease. Patients can also be tested for maternal serum HCG/alpha-fetoprotein through the Division of Genetic Screening.

In Mississippi, birth defects are the leading cause of infant mortality and one of the leading causes of potential life loss. The Division of Genetic Services collects data on all birth defects reported for individuals born in Mississippi on or after January 1, 2000. Through this birth defects surveillance system, infants and children with birth defects are identified and referred to appropriate programs for services. Sickle cell and genetic satellite clinics are strategically located throughout the state to provide counseling and clinical services.

The Mississippi Affiliate of the Muscular Dystrophy Association provides genetic screening and counseling free of charge to the people they support. The Association's Jackson, Tupelo, and Gulfport clinics provide these services.

Special Initiatives:

Perinatal High Risk Management/Infant Services System (PHRM/ISS): The perinatal high-risk management/infant services system provides a multi-disciplinary team approach to high risk pregnant women and infants through targeted case management. PHRM/ISS helps eligible women access needed medical care and enhanced services such as nursing, nutrition, and social work. A team of professionals provides risk screening assessments, counseling, health education, home visiting, and monthly case management. The program addresses the individual patient's risk factors to reduce the incidence of low birthweight and infant and maternal mortality and morbidity. Chapter X provides additional information on this program.

Infant Mortality Task Force: The Mississippi Infant Mortality Task Force fosters the reduction of infant mortality and morbidity in Mississippi and improves the health status of mothers and infants. The Task Force is composed of 11 voting members and one ex-officio member from each of the following: Department of Human Services, MSDH, Department of Education, Division of Medicaid, University of Mississippi Medical Center, Mississippi Primary Health Care Association, the Chairman of both the Senate and House Public Health and Welfare Committees, and one additional member of the Senate and House Committees as designated by the Chairman.

Pregnancy Risk Assessment Monitoring System (PRAMS): PRAMS is a part of the Centers for Disease Control and Prevention's initiative to reduce infant mortality and low birth weight. This risk factor surveillance system was designed to generate state-specific risk factor data and to allow comparison of these data among states. PRAMS offers ongoing, population-based information on a broad spectrum of maternal behaviors and experiences, and it captures data on the use of important Maternal/Child Health related resources. Data from the system can be used to develop, monitor, and assess programs designed to identify high-risk pregnancies and to reduce adverse pregnancy outcomes. The components of the PRAMS surveillance systems are summarized under four headings: Sampling and Stratification, Data Collection, Questionnaire, and Data Management and Weighting.

Perinatal Regionalization: Perinatal Regionalization coordinates perinatal care for a defined region, allowing all pregnant women and/or their newborn babies to benefit from the availability of risk-appropriate medical and hospital care. The system encompasses aspects of education, evaluation, referral, and transportation.

Sudden Infant Death Syndrome Program: Sudden Infant Death Syndrome (SIDS) is the sudden death of an infant under one year of age which remains unexplained after a thorough case investigation, including performance of a complete autopsy, examination of the death scene, and a review of the clinical history. SIDS is one of the major causes of death in infants from one month to one year of age. County health department staff initiate contact with families that have experienced a death due to SIDS (telephone, mail, or home visit) to offer support, counseling, and referral to appropriate services. SIDS literature is also available. Parents, caretakers, and pregnant women receive counseling regarding activities to reduce SIDS, such as putting the baby to sleep on its back and avoiding cigarette smoke.

Heart Disease and Stroke

The American Heart Association-Mississippi Affiliate, a volunteer agency with a local volunteer heart unit in many Mississippi counties, screens 15,000 to 20,000 people per year for

hypertension. The Affiliate provides screening to the public through health fairs and other educational programs. A nurse provides appropriate counseling and referral services after the screening, if desired. Follow-up services are not provided.

The Mississippi State Department of Health, through local county health departments, offers hypertension screening, diagnosis, treatment, and follow-up services jointly with the patient's private physician. The health departments also provide limited nutrition education, exercise counseling, and medication to those without other means of obtaining such services from other providers.

The Division of Health Promotion includes the state's Cardiovascular Disease (CVD) Prevention and Control program which seeks to develop environmental and policy supports for encouraging good nutrition, physical activity, and management of existing cardiovascular diseases of all Mississippians.

The state's Cardiovascular Health Program works closely with the Mississippi Chronic Illness Coalition (MCIC) to build relationships across the state to address heart disease and stroke. Several activities are implemented via this partnership, including a statewide social marketing campaign to promote awareness of key health indicators. In addition, community organizations are provided technical assistance and funding to conduct heart disease and stroke prevention activities statewide. The Heart Disease and Stroke Prevention state plan will be completed this year and disseminated to key stakeholders who assist in cardiovascular disease prevention/control. The plan will focus on all levels of health promotion from individual change strategies to policy change strategies to have a greater impact on the state's CVD reduction. Educational materials are made available via the Health Education Clearinghouse. These materials are available to the public and local districts for health education needs.

Breast and Cervical Cancer

Approximately 80,000 Mississippians have a history of cancer. The American Cancer Society estimates 2,500 new cases of breast cancer and 200 new cases of cervical cancer in Mississippi in 2003, and approximately 500 deaths from breast cancer during the year. Breast cancer is the second leading cause of cancer deaths among women age 45 to 65. The survival rate for non-invasive breast cancer approaches 100%; the survival rate for cervical cancer is 80-90%.

The Cancer Program works closely with the Maternal/Child Health and Family Planning programs in screening for cervical cancer in women of reproductive age. Reimbursement for diagnostic services (colposcopy directed biopsy) is provided for breast and cervical screening and mammograms. Currently, 33 contracts have been signed for breast and cervical cancer screening, and 34 contracts have been signed for mammography services. There is a limited amount of medication available for the treatment of breast cancer through the MSDH Pharmacy; public education programs are presented as requested from outside sources. Treatment funds are available via Mississippi Division of Medicaid for women detected with breast or cervical cancer enrolled in the Breast and Cervical Cancer Program.

MSDH's breast and cervical cancer program focuses on three major areas: 1) screening for breast and cervical cancer; 2) referral, follow-up, and reimbursement for outpatient diagnostic and treatment services for patients with abnormal conditions; and 3) public awareness and professional education.

Educational materials are available at the county levels and the central office of MSDH relating to breast and cervical cancer early detection. During 2002, staff provided public awareness materials and conducted presentations at health fairs and professional meetings. To date, 10,095 women have been screened for breast and cervical cancer; 108 breast and two cervical cancers have been detected.

Diabetes and Chronic Disabling Conditions

The American Diabetes Association (ADA), the nation's leading voluntary health organization concerned with finding a prevention and cure for diabetes, provides information and support to the millions who have the disease, and educates health professionals and the general public about the seriousness of diabetes. The ADA Mississippi Affiliate and local chapters offer programs of service and education throughout the state. The Association supports a national research program and conducts professional education, patient education, and public awareness campaigns. The Diabetes Foundation of Mississippi supports state specific research, professional education, patient education, public awareness campaigns, and assists patients with diabetic supplies.

The MSDH, through local county health departments, provides support services for screening and referral for definitive diagnosis, joint medical management, and professional education for physicians, nurses, nutritionists, and other health professionals. The program develops linkages with other programs which impact the treatment and management of diabetes, such as home health, hypertension, cardiovascular disease, maternity, family planning, children's medical program, and primary care centers.

During FY 2002, the Diabetes Prevention and Control Program (DPCP) served 421 persons with diabetes at a total cost of \$614.13 per patient for insulin; partnered with the Diabetes Foundation of Mississippi to promote awareness during "Diabetes Discovery Week" and Mississippi's Walk for Diabetes; collaborated with the Mississippi Chronic Illness Coalition to implement the "Know your Numbers" public awareness campaign; used the National Diabetes Education Program's media campaigns to promote diabetes awareness; targeted African-American churches to implement programs such as "Diabetes Sunday" and "Right Bite" cooking schools; collaborated with the American Diabetes Association and the LEAP Initiative to promote diabetes awareness; and implemented the "Head to Toe" campaign, which promotes screening for eyes, heart, and feet.

The Diabetes Resource Center, a facility established by the University of Mississippi Medical Center, MSDH, and the Diabetes Foundation of Mississippi, served persons with diabetes who are uninsured, under-insured, and indigent. The clinic served an average of 1,878 patients each month, averaging 112 new patients, with 840 patient visits and 319 educational visits each quarter.

HIV Disease and Other Sexually Transmitted Diseases

Mississippi, along with the rest of the world, faces a growing problem with HIV disease (HIV infection which has not yet developed into AIDS) and AIDS. Although Mississippi's number of cases of HIV disease is relatively small, the state must continue to prepare to manage the needs of the increasing number of people living with HIV disease. But, in attending to this problem, the state cannot afford to divert resources from the control of other sexually transmitted diseases.

Mississippi reported 755 new cases of HIV disease in 2002. As of December 2002, a cumulative total of 9,690 cases of HIV had been reported. Thirty percent of the people with AIDS have died. Health officials estimate that as many as 10,000 Mississippians may be affected with HIV, the virus that causes AIDS. The severity of the epidemic in the African-American community surpasses levels initially noted in white men who have sex with other men (MSM). African-American males and females now account for the majority of new HIV infections and AIDS cases. The behavioral connection between HIV infection and STDs indicates that the presence of STDs predisposes people to greater probability of HIV transmission and infection. In other words, Mississippi faces the likelihood of continuing to acquire HIV infections. Mississippi reported a total of 200 cases of early syphilis in 2002. While the number of new syphilis cases continued to diminish significantly, a slight increase occurred in the number of newly reported HIV infections and AIDS cases.

Traditional epidemiological approaches to the control of sexually transmitted diseases include detection, partner counseling and referral services, and treatment. For HIV/AIDS, targeted testing directed toward persons with high risk characteristics is the most cost-effective method of detection. High risk groups include: (a) men who have sex with men, (b) intravenous drug users, (c) hemophiliacs and others who received blood or blood products from 1978 to June 1985, (d) infants born to mothers who are at risk for HIV infection, and (e) heterosexuals who engage in high risk behavior.

The MSDH's Division of STD/HIV serves as the focal point for the majority of federal assistance provided to Mississippi for the prevention and control of STDs, HIV infection, and AIDS. During 2002, the program received grants from, or participated in cooperative agreements with, the Centers for Disease Control and Prevention, the Health Resources and Services Administration, and the Department of Housing and Urban Development to manage six projects worth over \$15 million. The Division's mission is to reduce the number of newly diagnosed STDs, HIV infection, and AIDS in Mississippi. The Division's major activities include surveillance; counseling and testing; partner counseling and referral services; health education/risk reduction; public information; HIV/AIDS drug, medical, and housing services reimbursement; minority initiatives; and STD treatment.

The Prevention and Education Branch plans, implements, and evaluates prevention interventions designed to reach high priority target populations. Branch staff conduct training sessions throughout the state to develop the knowledge and non-judgmental presentation skills necessary to support the STD/HIV Speakers Bureau. During 2002, an estimated 16,000 people benefitted from these services.

The Prevention and Education Branch also coordinates the distribution and management of federal funding provided to 10 community-based organizations (CBOs) throughout the state. These CBOs serve as partners with MSDH to provide culturally sensitive and age- and linguistically-appropriate prevention messages to a wide variety of Mississippians. These organizations received contracts based on the technical merit of their applications and the degree to which each application responded to the needs identified by the Mississippi HIV Prevention Community Planning Group.

The CARE and Services Branch manages funds that Mississippi receives under the provision of Title II of the Ryan White Comprehensive AIDS Resources Emergency (CARE) Act. These funds are available to provide life sustaining therapies for people living with HIV disease. The AIDS Drug Program managed by this branch served approximately 1,020 people in 2002, while the Home-based Program served more than 81. The Housing Opportunities for People living with AIDS

Program, also managed by this Branch, enabled people living with HIV disease and their families to remain together.

Although there is no known cure for HIV, there are drugs which slow the course of the disease and prolong the lives of patients. Protease inhibitors, in combination with other antiretrovirals, can drastically reduce the amount of HIV present in the body. This therapy is very costly (\$12,000 to \$16,000 per patient per year) and is therefore unavailable to most infected Mississippians without financial assistance. Treatment of the opportunistic diseases which accompany AIDS often requires hospitalization and expensive medications. Estimates of the costs of treating current and future AIDS patients are astronomical. Currently, the average lifetime medical cost for an AIDS patient is between \$129,000 and \$200,000; the annual cost of treating a person with HIV infection (not yet AIDS) is approximately \$32,000. Costs may vary considerably from patient to patient.

The source of payment for the high costs of HIV testing and treatment is but one of many issues being brought to the forefront of public health policy discussions. Other states have proposed or passed legislation addressing such issues as involuntary testing of defined groups of persons and discrimination by insurance companies and employers of those infected with HIV.

MSDH staff, current and potential HIV/AIDS providers, and interested citizens participated in an HIV Services Planning Project. The group developed a statewide plan for delivering integrated health and social services to individuals with HIV/AIDS and all of its clinical manifestations. The MSDH published the results of this project, which included recommendations in the following areas:

- HIV counseling and testing;
- outpatient medical care;
- dental policy development and accessible dental care;
- long-term planning for hospitals regarding inpatient care;
- home health services;
- medical equipment, supplies, and medication;
- hospice care; and
- support services, such as case management and care coordination.

The state will continue its efforts to control the spread of HIV disease through public education, treatment, and contact counseling.

The Division of Medicaid was awarded a six-year grant by the Health Care Financing Administration under the Ticket to Work and Work Incentives Improvement Act of 1999 to provide Medicaid services to individuals with a diagnosis of HIV or AIDS who do not meet the disability criteria of the Social Security Administration. The purpose of the demonstration grant is to determine whether providing coverage to individuals with HIV/AIDS earlier in the course of their disease will improve their ability to stay employed and remain self-sufficient, maintain their physical and mental health, and delay onset of disability.

Infectious Diseases and Immunization

The MSDH Office of Epidemiology provides a statewide surveillance program to monitor the occurrence and trends of reportable infectious diseases. The staff provide consultation, direction, and investigation of outbreaks of disease or illness (infectious, non-infectious, or toxic) to determine the cause and to recommend control and preventive measures. The office provides drugs for direct disease intervention in specific illnesses and offers educational updates and training to the medical

and lay communities. The office cooperates in epidemiologic activities and reporting with the Centers for Disease Control's National Surveillance System. The *Mississippi Morbidity Report* is distributed on a monthly basis to approximately 7,000 physicians, hospitals, laboratories, and health care facilities throughout the state. Staff provides consultation to health care providers and the general public on communicable disease control and prevention, environmental epidemiology, specific disease outbreaks, vaccine preventable disease, international travel regulations, TB, STD, AIDS, and accident prevention.

The MSDH Immunization Program provides and supports services designed to ultimately eliminate morbidity and mortality due to childhood, adolescent, and adult vaccine-preventable diseases, influenza, and pneumonia. These services include vaccine administration, monitoring of immunization levels, disease surveillance and outbreak control, information and education, and enforces immunization laws by monitoring compliance in schools and day care centers.

Data for 2002 indicated that the immunization level for 24 month old children was 87.5 percent based on the 4-3-1 schedule. For 4-3-1-3 (HIB) the level was 86.6 percent. All MSDH clinics determined coverage levels through use of the Clinic Assessment Software Application (CASA). Additionally, an integral part of every non-MSDH Vaccines For Children provider clinic evaluation includes a CASA assessment annually. National Infant Immunization Awareness Week and National Adult Immunization Awareness Week are yearly events that the Immunization Division promotes and supports. The Immunization Program promotes adolescent immunization through the school-based Hep-B program. The Mississippi Statewide Immunization Coalition held three meetings during the year, with approximately 100 people in attendance at each meeting. This coalition is currently functioning as a 501-C-3 organization.

All immunization providers in the state are not reporting immunization histories to the registry. The bar code technology to fully implement the registry to all providers in the state has been developed and private providers are currently reporting through this method. Fax, phone, and mail reporting are currently available. The Division of Immunization provides technical assistance to MSDH staff on all registry issues related to the statewide immunization registry. The Immunization Program has developed web site access to the Statewide Immunization Registry for providers to view immunization histories. Currently, 99 providers are accessing the web site at the clinic level. The Immunization Division has implemented access from the website and printing capability of the Certification of Immunization form.

Tuberculosis

The American Lung Association of Mississippi (ALAM), a non-profit voluntary health organization dedicated to lung disease prevention and control, provides several programs geared toward public awareness. These programs include public information, patient services, emergency financial assistance, public and professional education, and medical research. ALAM concerns itself with any lung or breathing problem — more than 30 serious lung diseases, in addition to tuberculosis, present a threat to "life and breath". ALAM's strong volunteer crusade battles tuberculosis, emphysema, chronic bronchitis, lung cancer, asthma, pneumonia, dust and lung diseases, Sudden Infant Death Syndrome, and any of the multitude of problems that strike the lungs or respiratory system.

The MSDH Tuberculosis Program provides early and rapid detection; appropriate treatment and follow-up; and therapy for latent tuberculosis infection (LTBI) to persons at risk of developing

the disease. Because of the significant public health implications of tuberculosis, regularly scheduled educational up-dates and certification courses are provided to persons in health related occupations.

Several areas of concern regarding TB trends in 2002 include: 13 cases were drug resistant; 10 cases were among children; ten were foreign born; and five cases were HIV-positive. The continuing transmission of TB to children and the growing number of foreign born individuals from high prevalence countries relocating to Mississippi are the most significant threats confronting the prevention and control of TB.

With 134 cases reported, tuberculosis morbidity in Mississippi declined 13.0 percent in 2002. Mississippi's aggressive efforts to eliminate TB have resulted in an overall reduction in morbidity of 65 percent since 1989. TB in black Mississippians has declined from 217 cases in 1989 to 71 cases in 2002, with a reduction in the case rate among blacks from 23.6 to 6.9 cases per 100,000 population.

Of the 339 latent TB infection preventive patients under 15 years of age for whom directly observed therapy was recommended in 2002, 99 percent were placed on this therapy. Ninety percent of the HIV-positive preventive patients were placed on directly observed therapy. Ninety-three percent of the 668 newly infected Mississippi Department of Corrections inmates placed on latent TB infection therapy are receiving directly observed therapy.

Clinical Preventive Services

The Division of Medicaid, through the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program, offers health care to eligible children and youth under the age of 21 years. This program screens children for physical, mental, and developmental defects and provides for necessary health care to correct or ameliorate those defects. Treatment for visual, hearing, and dental problems is also provided. Thus, EPSDT introduces eligible children into the health care system and makes services available to them before health problems become chronic and expensive to treat. EPSDT also provides teenagers with factual reliable information to help them make better and more healthful choices.

The MSDH provides childhood immunizations, well-child assessments, and tracking of infants and other high risk children, targeting services to children whose family incomes are at or below 185 percent of the federal poverty level. The Department serves more than 115,000 children annually. Adjunct services such as the Genetic Screening Program, the Supplemental Food Program for Women, Infants and Children (WIC), the Children's Medical Program, the Childhood Lead Poisoning Prevention Program, Abstinence, and the Birth Defects Registry are important components of the comprehensive Child Health Program. The multidisciplinary team includes medical, nursing, nutrition, and social services. The program provides early identification of potentially crippling conditions and linkages with providers necessary for effective treatment and management.

Special Initiatives:

Out-Reach Initiative Project: The failure of parents to take advantage of the EPSDT program is a major problem in the provision of preventive health services. Approximately 55 percent of children eligible for EPSDT fail to keep appointments. Consequently, early childhood services, i.e., immunizations, are deferred until the child is ready to enter Head Start or kindergarten. Providers of EPSDT services are charged with the responsibility of outreach to those children who are not in the EPSDT program in an effort to bring them into the mainstream of health care.

First Steps Early Intervention System: Mississippi has implemented an interagency early intervention system, called *First Steps*, for infants and toddlers with developmental disabilities. Early intervention of children experiencing developmental delay reduces the chance of negative economic, health status, educational, and social effects throughout adulthood. Chapter XII presents additional information on this program.

Table VII-A-1
**Status of Selected Year 2000 National Health Objectives
for the State of Mississippi, 2000**

Objective Number	Target Area/Objectives	Mississippi 2000 Status	Year 2000 Objective (National)
1.	Physical Activity and Fitness		
1.1	Coronary heart disease deaths	116.1	100.0 per 100,000 ¹
1.1a	Blacks	144.1	115.0 per 100,000 ¹
1.2	Reduce overweight (based on body mass index)	40	20.0 percent
1.3	Light to moderate physical activity	19	30.0 percent
1.4	Vigorous physical activity	10	20.0 percent
1.4a	Income less than \$20,000	7	12.0 percent
1.5	No leisure-time activity	33	15.0 percent
1.5a	65+ years old	43	22.0 percent
1.5c	Income less than \$20,000	42	17.0 percent
2.	Nutrition		
2.2	Cancer deaths	138.6	130.0 per 100,000 ¹
3.	Tobacco		
3.2	Lung cancer deaths	46.6	42.0 per 100,000 ¹
3.3	Chronic obstructive pulmonary disease deaths	23.9	25.0 per 100,000 ¹
3.4	Cigarette smoking	23	15.0 percent
3.4a	High school education or less	26	20.0 percent
3.4d	Blacks	18	18.0 percent
4.	Alcohol and Other Drugs		
4.2	Cirrhosis deaths	8.4	6.0 per 100,000 ¹
4.2a	Black males	7.9	12.0 per 100,000 ¹
4.3	Drug-related deaths	4.0	3.0 per 100,000 ¹
5.	Family Planning		
5.1	Pregnancies among girls aged 15-17	50.6	50.0 per 1,000 females
5.1a	Black adolescent girls aged 15-19	107.3	120.0 per 1,000 females
6.	Mental Health and Mental Disorders		
6.1	Suicides	9.8	10.5 per 100,000 ¹
6.1a	Youth aged 15-19	10.7	8.2 per 100,000
6.1b	Men aged 20-34	22.2	21.4 per 100,000
6.1c	White males aged 65+	33.2	39.2 per 100,000
7.	Violent and Abusive Behavior		
7.1	Homicides	11.6	7.2 per 100,000 ¹
7.1a	Children ≤ 3	9.0	3.1 per 100,000
7.1c	Black males aged 15-34	66.3	72.4 per 100,000
7.1e	Black females aged 15-34	11.4	16.0 per 100,000
7.3	Weapon-related violent deaths	16.8	12.6 per 100,000 ¹

Table VII-A-1 (continued)
**Status of Selected Year 2000 National Health Objectives
for the State of Mississippi, 2000**

Objective Number	Target Area/Objectives	Mississippi 2000 Status	Year 2000 Objective (National)
9.	Unintentional Injuries		
9.1a	Unintentional injury deaths	52.6	29.3 per 100,000 ¹
9.1b	Black males	77.6	51.9 per 1,000,000
9.1c	White males	84.2	42.9 per 100,000
9.3	Motor vehicle crash deaths	32.4	14.2 per 100,000 ¹
9.3a	Children ≤ 14	9.7	4.4 per 100,000
9.3b	Youth ages 15-24	50.7	26.8 per 100,000
9.3c	People aged 70+	43.2	20.0 per 100,000
9.3e	Motorcyclists	0.8	0.9 per 100,000 ¹
9.3f	Pedestrians	2.1	2.0 per 100,000 ¹
9.4	Falls and fall-related deaths	2.7	2.3 per 100,000 ¹
9.4a	People aged 65-84	22.3	14.4 per 100,000
9.4b	People aged 85+	156.2	105.0 per 100,000
9.4c	Black males aged 30-69 years old	4.2	5.6 per 100,000
9.5	Drowning deaths	2.8	1.3 per 100,000 ¹
9.5a	Children ≤ 4	6.4	2.3 per 100,000
9.5b	Males aged 15-34	6.1	2.5 per 100,000
9.5c	Black males	6.0	3.6 per 100,000
9.6	Fire deaths	2.7	1.2 per 100,000
9.6a	Children ≤ 4	5.9	3.3 per 100,000 ¹
9.6b	People aged 65+	10.2	3.3 per 100,000
9.6c	Black males	6.0	4.3 per 100,000
9.6d	Black females	3.5	2.6 per 100,000
9.12	Safety belt use (1997 data)	57	85.0 percent
13.	Oral Health		
13.7	Oral cavity and pharynx cancer deaths		
	Males aged 45-74	14.2	10.5 per 100,000
	Females aged 45-74	2.6	4.1 per 100,000
14.	Maternal and Infant Health		
14.1	Infant mortality rate	10.6	7.0 per 1,000 LB ²
14.1a	Blacks	15.3	11.0 per 1,000 LB
14.1d	Neonatal mortality rate	6.6	4.5 per 1,000 LB
14.1e	Blacks	9.8	7.0 per 1,000 LB
14.1g	Postneonatal mortality rate	4.1	2.5 per 1,000 LB
14.1h	Blacks	5.5	4.0 per 1,000 LB
14.2	Fetal death rate	10.3	5.0 per 1,000 LB + FD ³
14.2a	Blacks	15.8	7.5 per 1,000 LB
14.3	Maternal mortality rate	18.2	3.3 per 100,000 LB
14.3a	Blacks	30.2	5.0 per 100,000 LB
14.5	Low birth weight (<2,500g)	10.7	5.0 percent of LB
14.5a	Blacks	14.0	9.0 percent of LB
	Very low birth weight (<1,500 g)	2.2	1.0 percent of LB
	Blacks	3.2	2.0 percent of LB
14.8	Caesarean delivery rate	27.7	15.0 percent of LB + FD ³
14.8a	Primary (first time)	18.4	12.0 percent of LB + FD ³
14.8b	Repeat	88.2	65.0 percent of LB + FD ^{3,4}
14.10	Abstinence from tobacco use	87.5	90.0 percent of LB
	Abstinence from alcohol use	99.0	95.0 percent of LB
14.11	Prenatal care in the first trimester	80.8	90.0 percent of LB
14.11a	Blacks	71.9	90.0 percent of LB

Table VII-A-1 (continued)
**Status of Selected Year 2000 National Health Objectives
for the State of Mississippi, 2000**

Objective Number	Target Area/Objectives	Mississippi 2000 Status	Year 2000 Objective (National)
15.	Stroke		
15.2	Stroke deaths	32.4	20.0 per 100,000 ¹
15.2a	Blacks	47.6	27.0 per 100,000 ¹
15.14	Cholesterol checked within the past 5 years	62	75.0 percent
16.	Cancer		
16.3	Breast cancer deaths	21.2	20.6 per 100,000 females ¹
16.4	Uterine cervix cancer deaths	2.8	1.3 per 100,000 females ¹
16.5	Colorectal cancer deaths	14.3	13.2 per 100,000 ¹
16.11	Ever received a CBE ⁵ and mammogram (women 40+)	77	80.0 percent
16.11b	Income less than \$10,000	62	80.0 percent
16.11c	Less than a high school education	59	80.0 percent
16.11d	Women aged 70+	78	80.0 percent
16.11e	Black women	67	80.0 percent
16.11	CBE ⁵ and mammogram in past 2 years (women 50+)	60	60.0 percent
16.11b	Income less than \$10,000	44	60.0 percent
16.11c	Less than a high school education	40	60.0 percent
16.11d	Women aged 70+	55	60.0 percent
16.11e	Black women	53	60.0 percent
16.12	Ever received a pap test (women aged 18+) ⁶	95	95.0 percent
16.12b	Women aged 70+	85	95.0 percent
16.12c	Less than a high school education	87	95.0 percent
16.12d	Income less than \$10,000	87	95.0 percent
16.12	Pap test in the past 3 years (women aged 18+) ⁶	87	85.0 percent
16.12b	Women aged 70+	75	70.0 percent
16.16c	Less than a high school education	71	75.0 percent
16.12d	Income less than \$10,000	68	80.0 percent
16.13	Ever had a proctosigmoidoscopy (persons aged 50+) (1999 data)	36	40.0 percent
17.	Diabetes and Chronic Disabling Conditions		
17.9	Diabetes-related deaths	52.5	34.0 per 100,000 ¹
	Blacks	82.9	58.0 per 100,000 ¹
19.	Sexually Transmitted Disease		
19.1	Gonorrhea	318.2	100.0 per 100,000
19.3	Primary and secondary syphilis	4.9	4.0 per 100,000
	Immunization and Infectious Disease		
20.3	Hepatitis A	4.9	16.0 per 100,000
20.4	Incidence of tuberculosis	6.1	3.5 per 100,000
20.7	Bacterial meningitis	0.7	4.7 per 100,000
20.11	Influenza immunization in the past 12 months (persons aged 65+) (1999 data)	62	60.0 percent
	Ever had a pneumococcal immunization (persons aged 65+) (1999 data)	48	60.0 percent
	Aged Related Objectives		
	Death rate for children aged 1-14	36.4	28.0 per 100,000 children 1-14
	Death rate for adolescents and young adults aged 15-24	120.4	85.0 per 100,000 people 15-24
	Death rate for adults aged 25-64	521.8	340.0 per 100,000 people 25-64

Table VII-A-1 (continued)
**Status of Selected Year 2000 National Health Objectives
for the State of Mississippi, 2000**

¹ Current and target rates are age-adjusted to the 1940 U.S. Census population.

² Live Births.

³ Live Births + Fetal Deaths.

⁴ Percentage of women who had previous Caesarean sections.

⁵ Clinical Breast Exam

⁶ Women with an intact uterine cervix

Technical Note: Population-based rates were calculated using 2000 population estimates for Mississippi produced by the U.S. Bureau of the Census. Versions of this publication prior to 1997 were based on the 1990 census population data. For this reason, the population-based rates presented here and in 1997 are not directly comparable to those from previous years. Because the population estimates show Mississippi's population to be increasing, any of the rates will have decreased dramatically from those published prior to 1997. However, due to the changing age structure of the population, some rates (especially for younger age groups) may increase because of the change in population figures.

Beginning in 1999, cause of death coding utilizes the *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10)*. Every effort has been made to make the figures in this population comparable to previous versions. However, caution should be used when comparing between the ICD-9 and ICD-10 revisions.

Sources: *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*, PHS, U.S. Department of Health and Human Services, September 1990; *Vital Statistics, 2000*, Mississippi State Department of Health, Bureau of Public Health Statistics; and *Mississippi Morbidity Report*, Office of Epidemiology, Mississippi State Department of Health; and Behavioral Risk Factor Surveillance System.